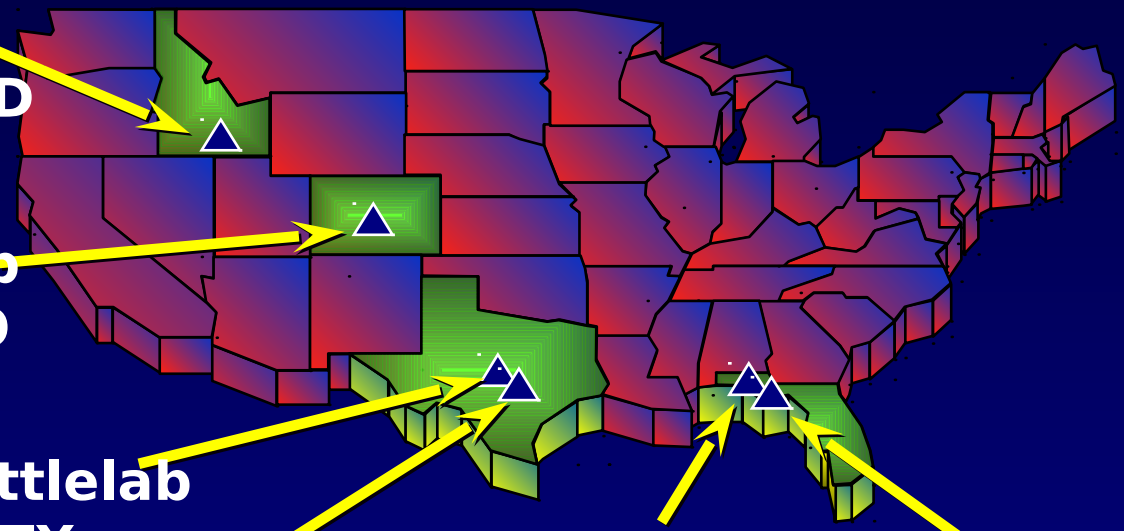
USAF Command and Control Battlelab

Col John Gorman
Commander

UNCLASSIFIED

Air Force Battlelabs



ACC
AEF Battlelab
Mt Home AFB, ID

AFSPC
Space Battlelab
Falcon AFB, CO

AIA
Info Warfare Battlelab
Kelly AFB, TX

Security Forces Center
Force Protection Battlelab
Lackland AFB, TX

ACC
C2 Battlelab
Hurlburt Field, FL

ACC
UAV Battlelab
Eglin AFB, FL

Battlelab Mission

"Rapidly Identify and prove the worth of innovative ideas which improve the ability of the Air Force to execute its core competencies and Joint Warfighting"

Fundamentals

- **Lean**
  - **permanent cadre of no more than 25 people**
  - **Augmented by TDY & Contractors**
  - **Limited infrastructure**
- **Unique**
  - **Evaluates Ideas & Concepts**
  - **Not Systems Programs & Projects**
- **Focused**
  - **Leveraging existing expertise, technology and contracts**
- **Innovative**
  - **Proving concepts that drive revision to doctrine, organization, training, requirements or acquisitions**

Battlelabs, Warfare Centers & AF Research Labs

The FIELD

SPACE WARFARE CENTER | INFO WARFARE CENTER | AIR WARFARE CENTER | C2 TNG & Innovation CENTER | MOBILITY WARFARE CENTER | SECURITY FORCES CENTER

INNOVATIVE IDEAS

OPERATIONAL CONCEPTS

SPACE BATTLEAB | IW BATTLEAB | UAV BATTLEAB | C2 BATTLEAB | AEF BATTLEAB | FP BATTLEAB

LEADING EDGE TECHNOLOGY

TECHNOLOGICAL NEEDS

PHILLIPS | WRIGHT | ROME | ARMSTRONG

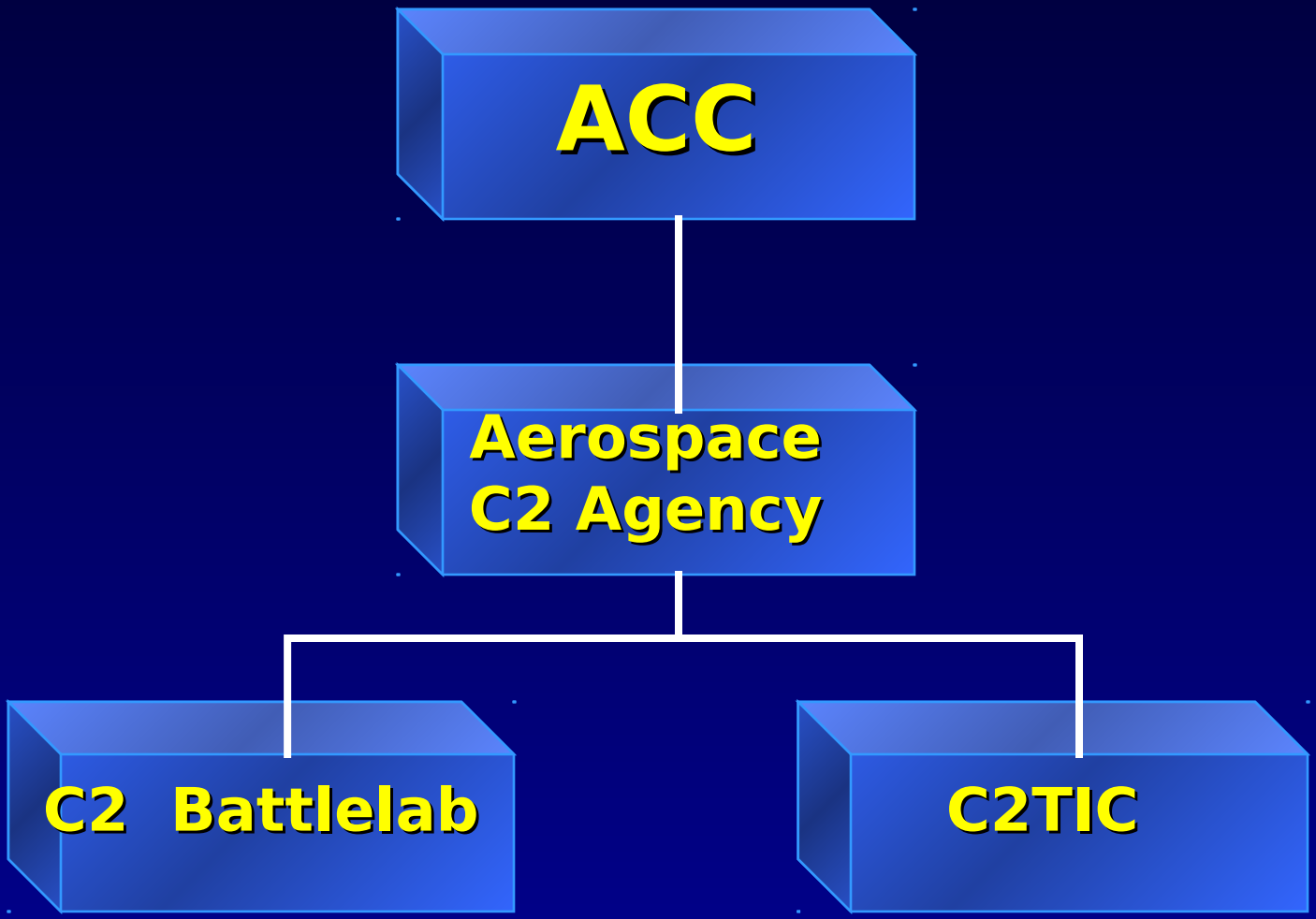
Air Force Research Lab

Battlelab Initiatives

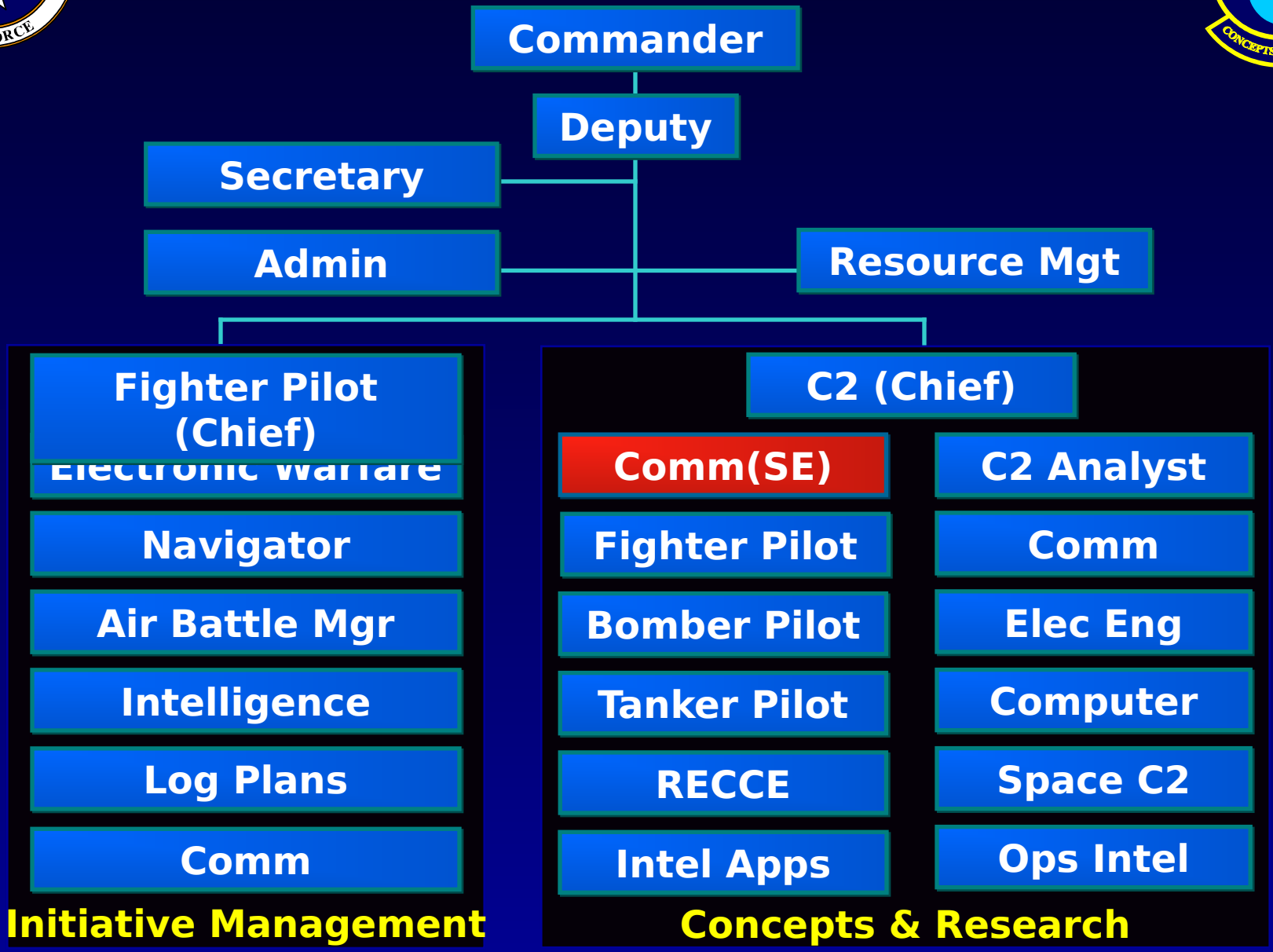
Kenney Battlelab Initiative

- Innovative
- Less costly
- MAJCOM Planning & Execution
- Led by a Battlelab Director
- Coordinated with other Battlelabs
- Resources by MAJCOM

Organization



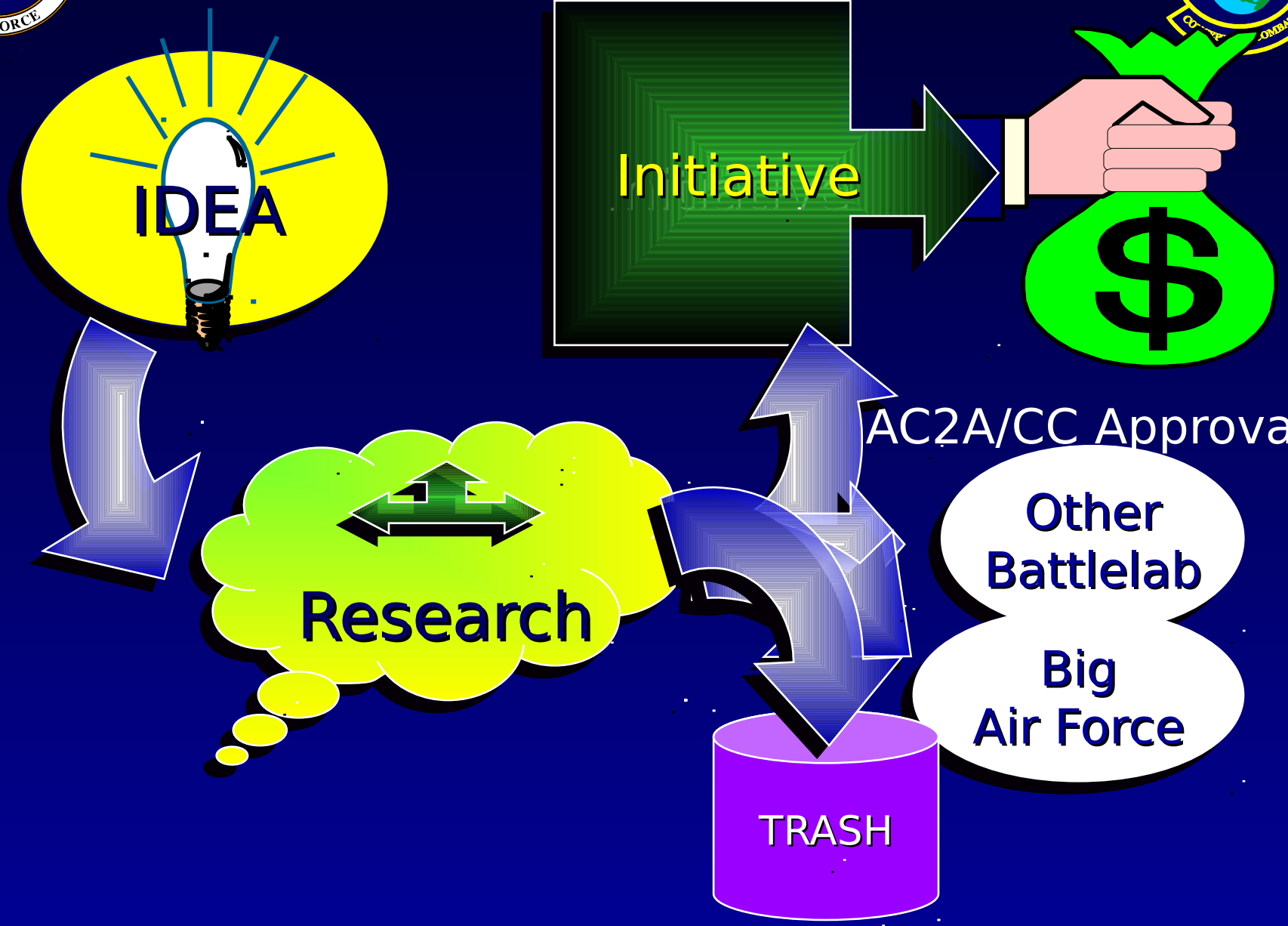
Personnel Status



Facilities

- C2B
  - Office Space
  - Modest Initiative Facility
    - DISNLES, VTC, SIPRNET, GCCS, Racks
- C2TIC
  - Baseline AOC
  - Blue Flag Sim Center
  - GTACS
  - BTS Schoolhouse
  - SAP/SAR Skif
  - SMEs

Process

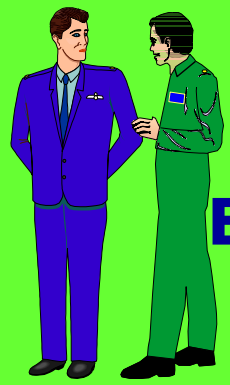

IDEA
Initiative
$
AC2A/CC Approval
Research
Other Battlelab
Big Air Force
TRASH

Initiative Process Execution

Technical Eval

AFOTEC ESC
AFDTC AFRL

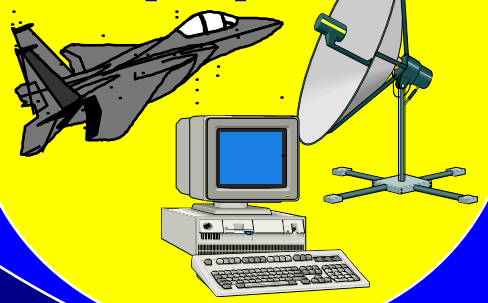
CONTRACTOR



Experts

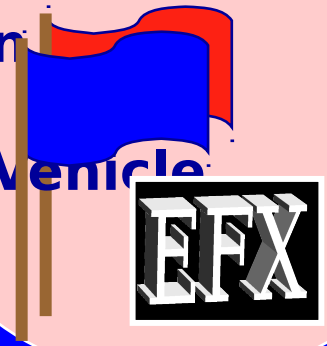
CONOPS

Equipment



Demonstratio n

Vehicle



Implementation of Results

Brief KBI/MBI Results

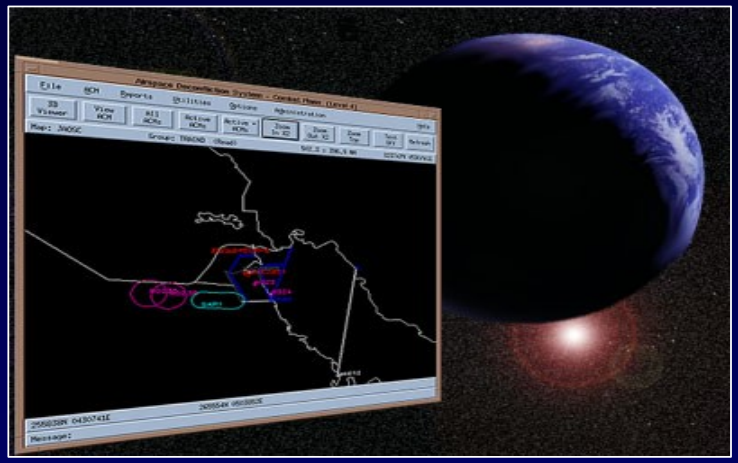
Recommends:

- AF Changes
  - Training
  - Doctrine
  - TTP
  - Acquisition
- Follow-on Actions
  - ATD/ACTD
  - Joint Test

After Initiative Report

Completed KBIs

- ATO Visualization
  - Defined requirements
  - Partial implementation into TBMCS
  - Spawned ACTD candidate



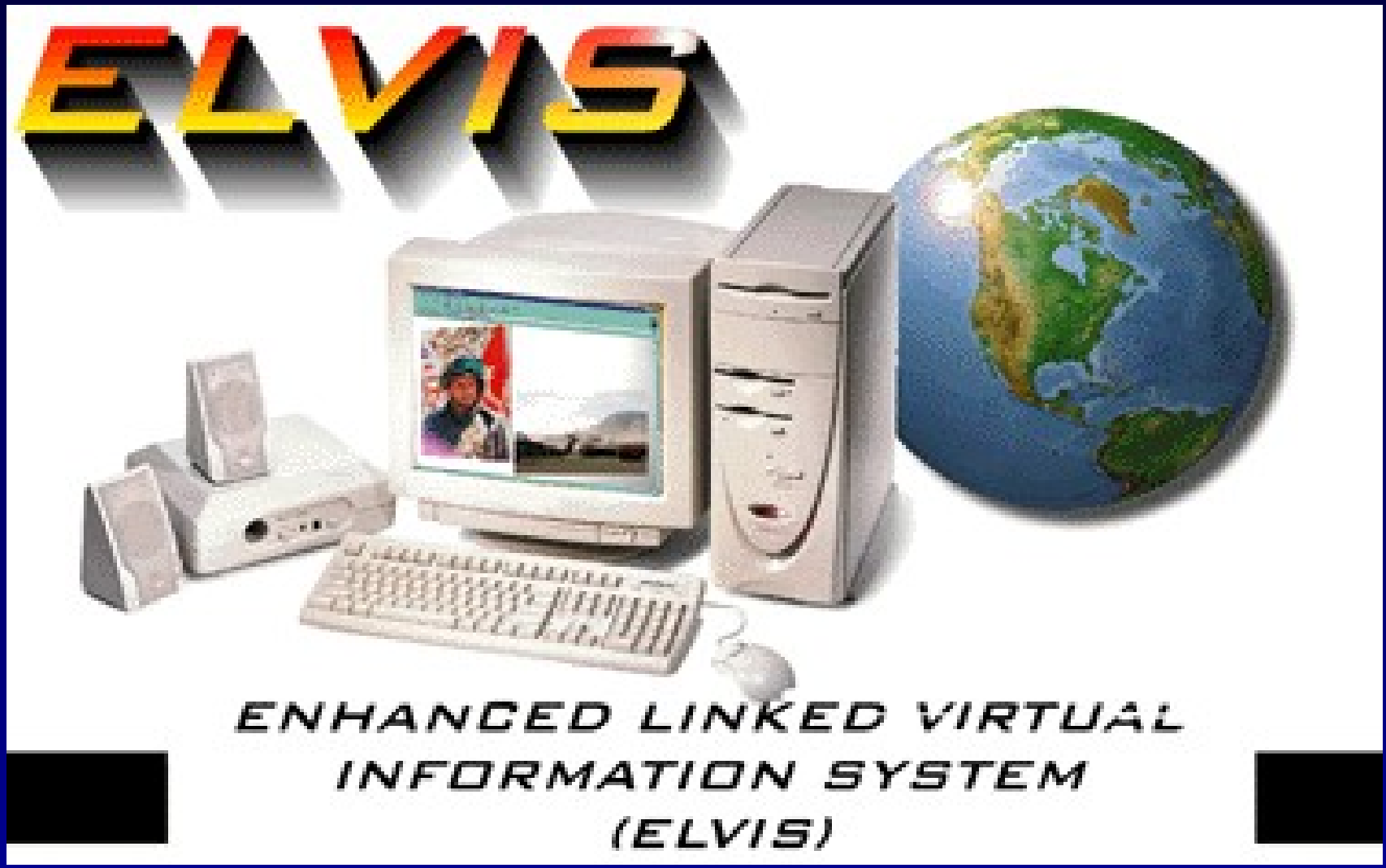
- JFACC Phase II
  - Participation altered program
  - Future participation TBD

ACTIVE KBI's

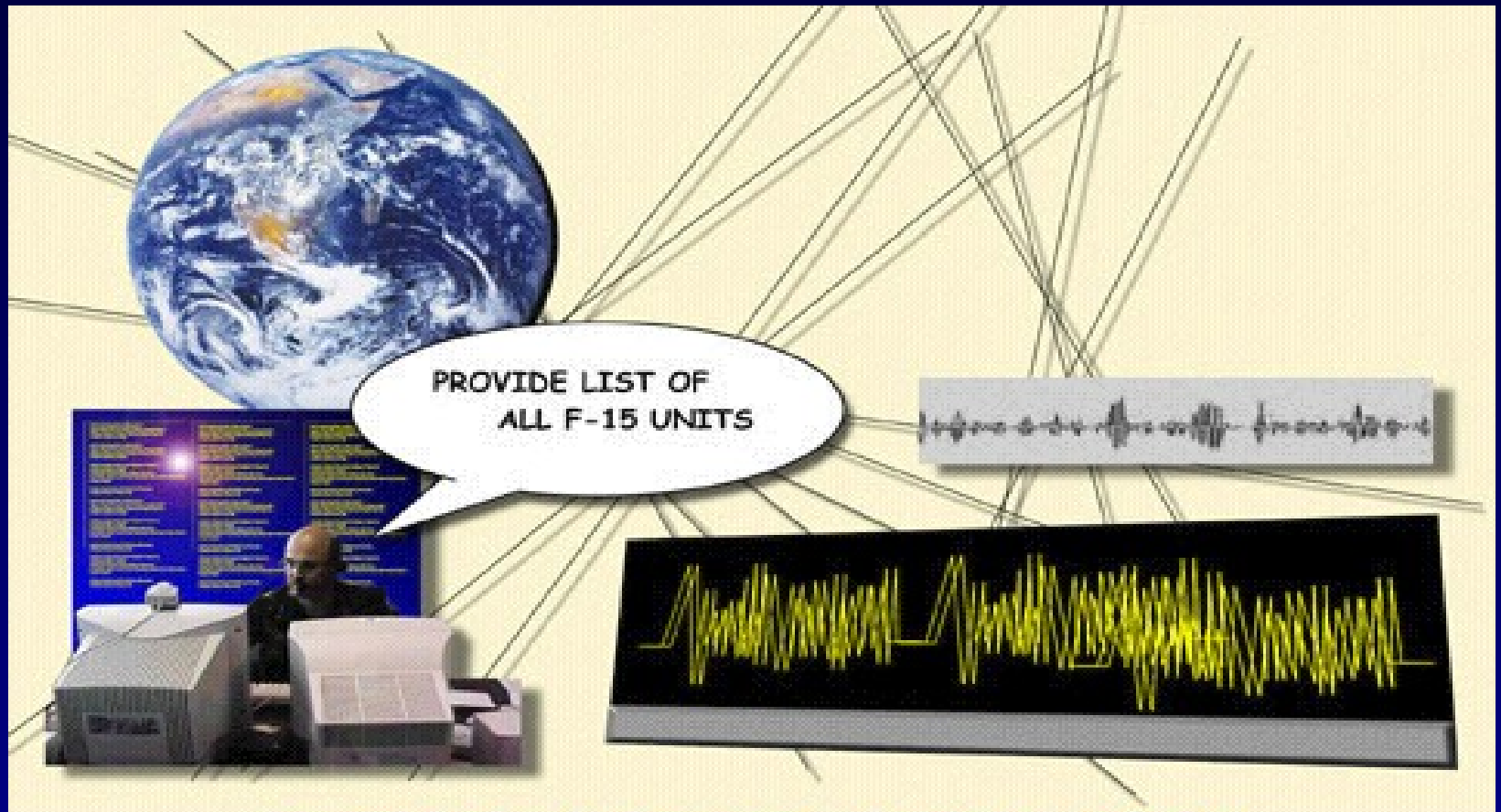
- Collaborative Tools
- ELVIS
- Speech Recognition
- Hardware Footprint Reduction
- HF DATA Modem
- Tactical Sensor Integration Capability

COLLABORATIVE TOOLS KBI

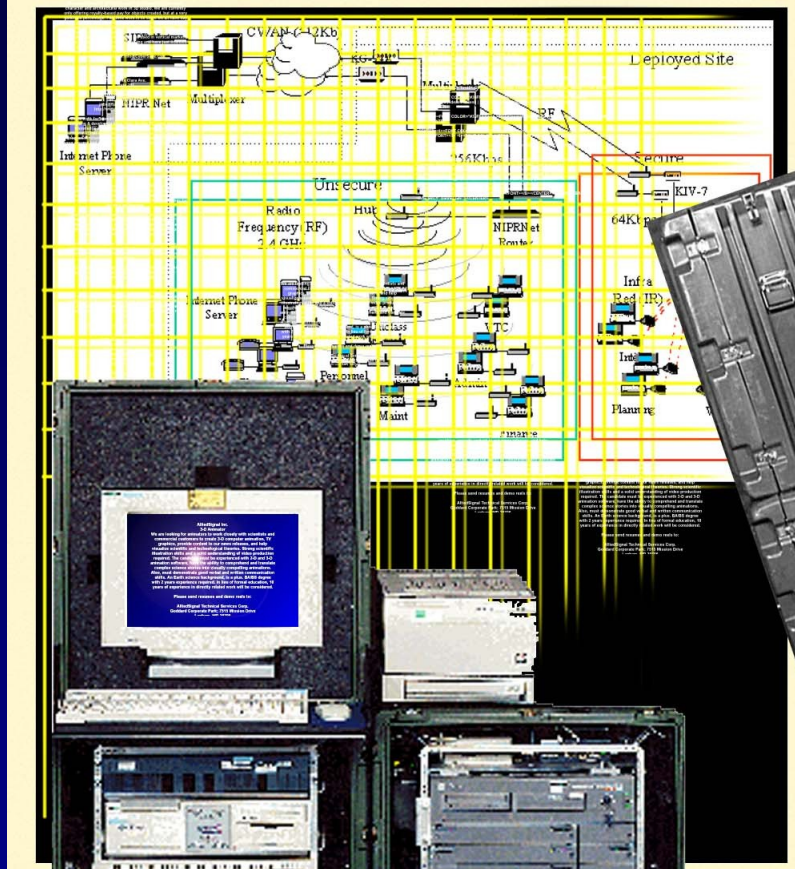
ELVIS KBI

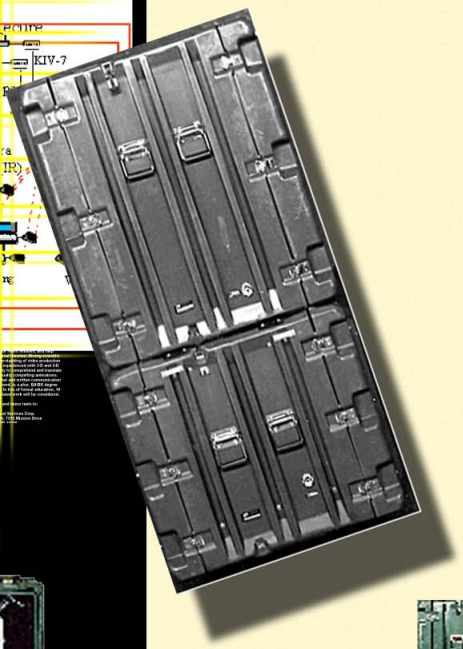


Speech Recognition KBI



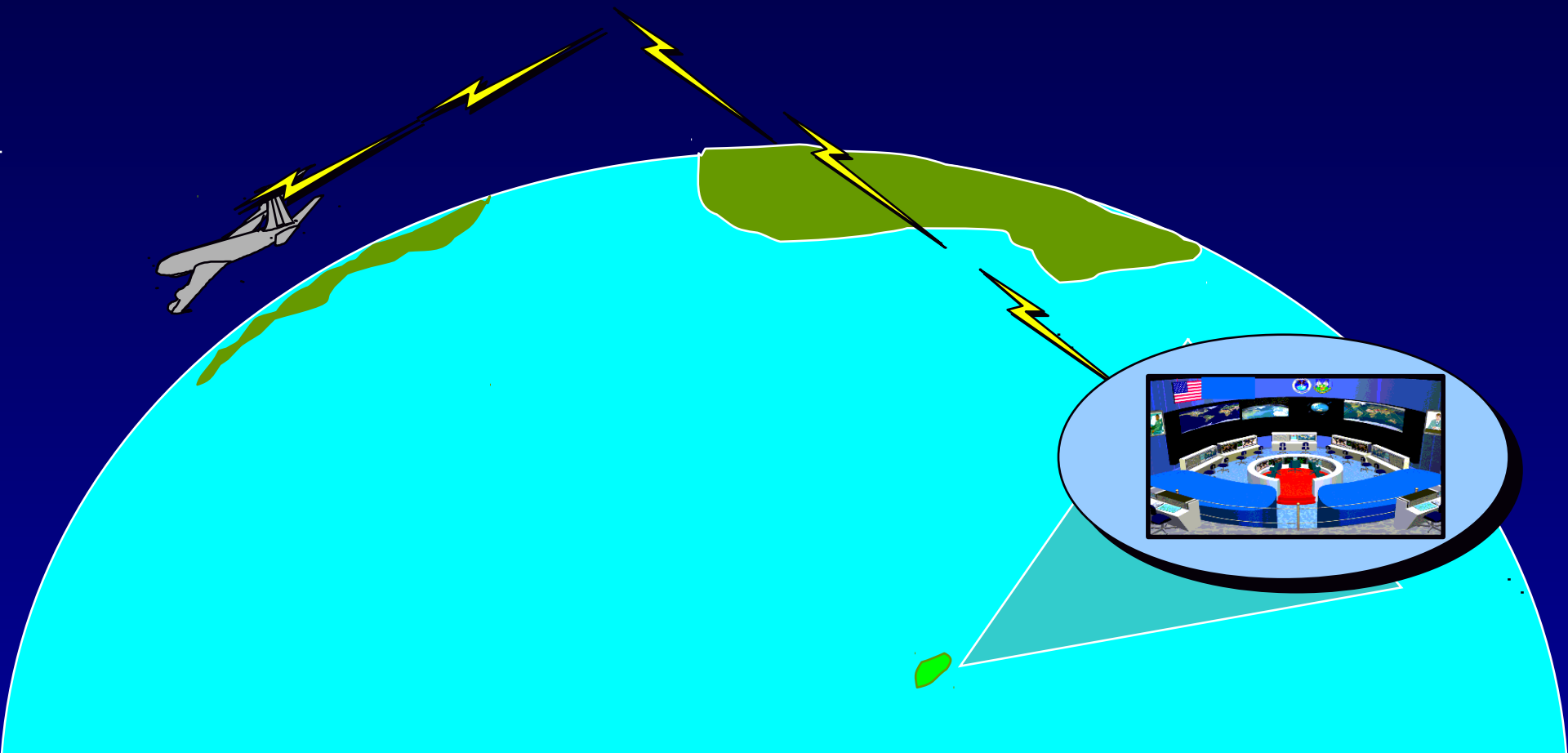
Hardware Footprint Reduction KBI



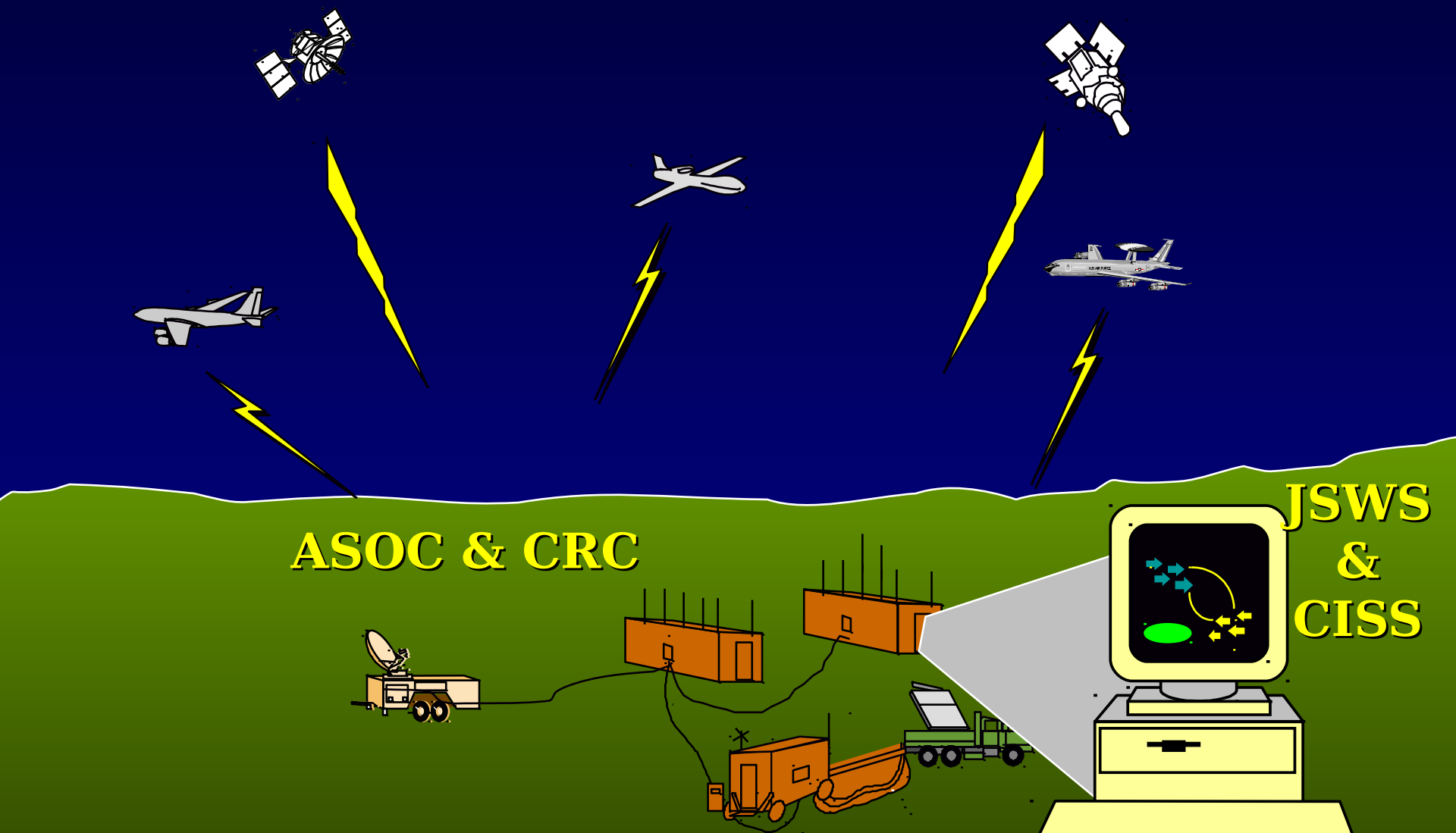


REDUCED HARDWARE FOOTPRINT

HF Data Messaging



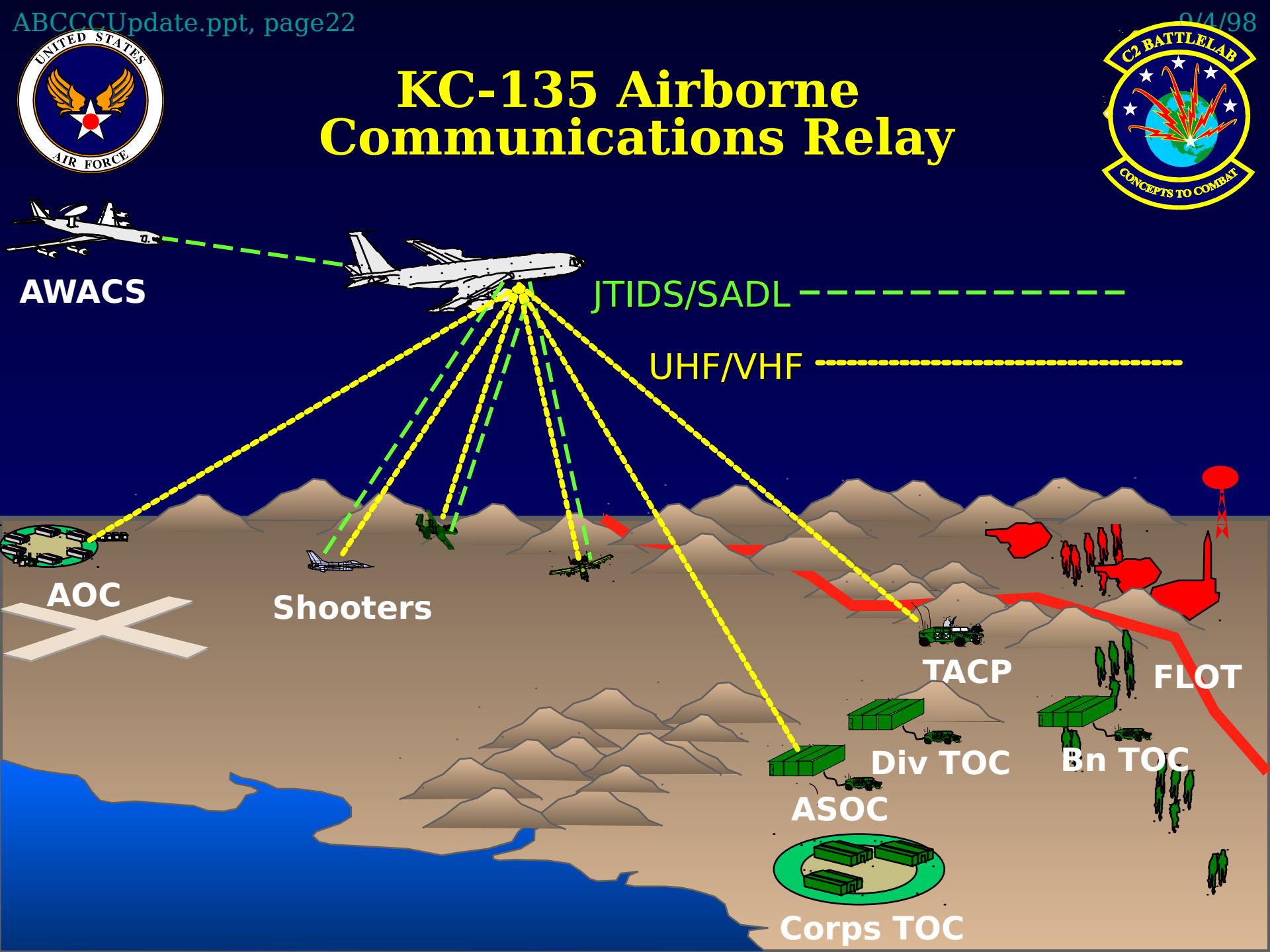
Tactical Sensor Integration Capability



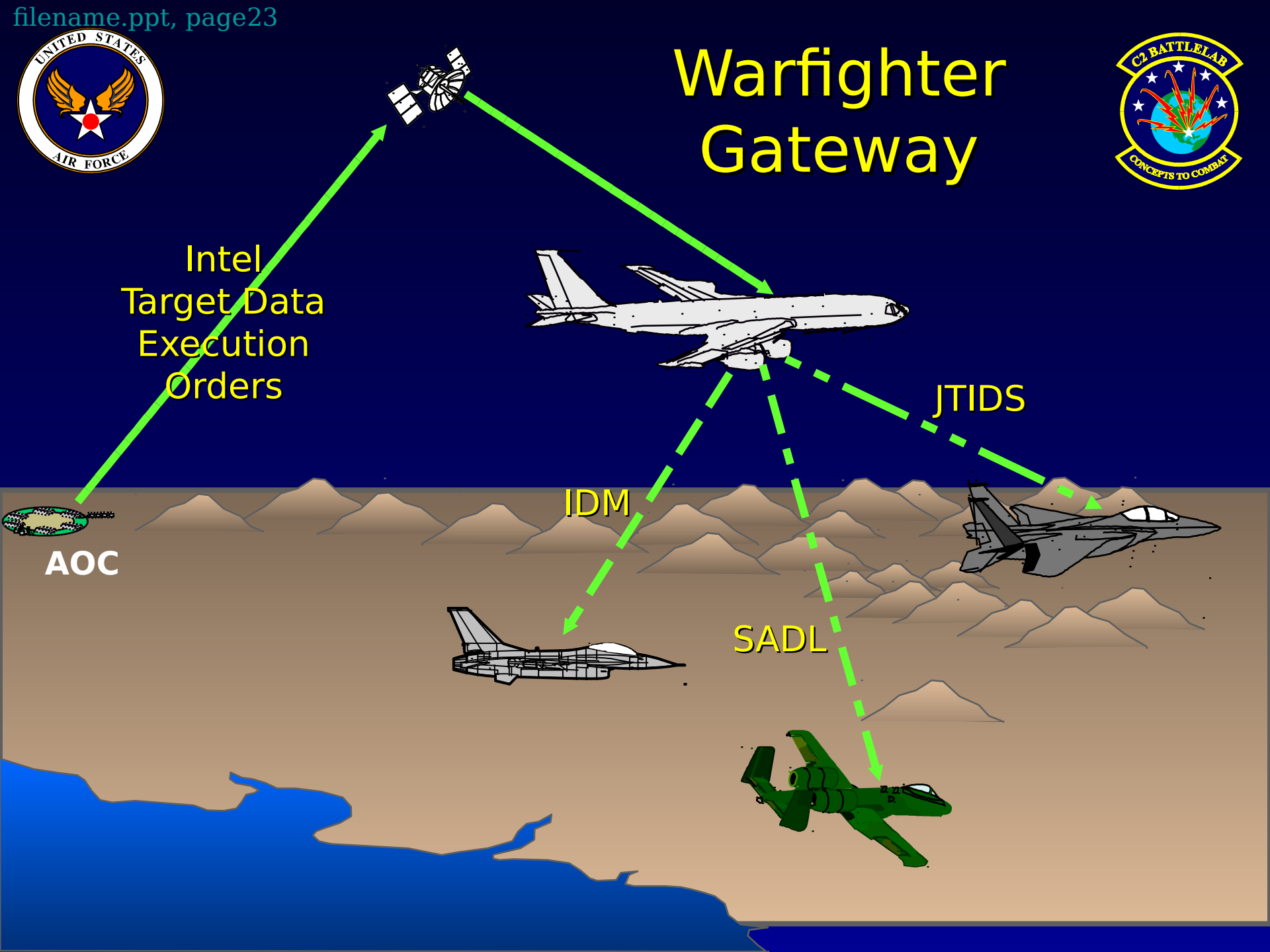
KBI Wannabe's

- Warfighter Gateway
- KC-135 Airborne Comm Relay
- AOC Computer Access & Security
- Hill ATO DeFragger
- JFACC Project Phase III

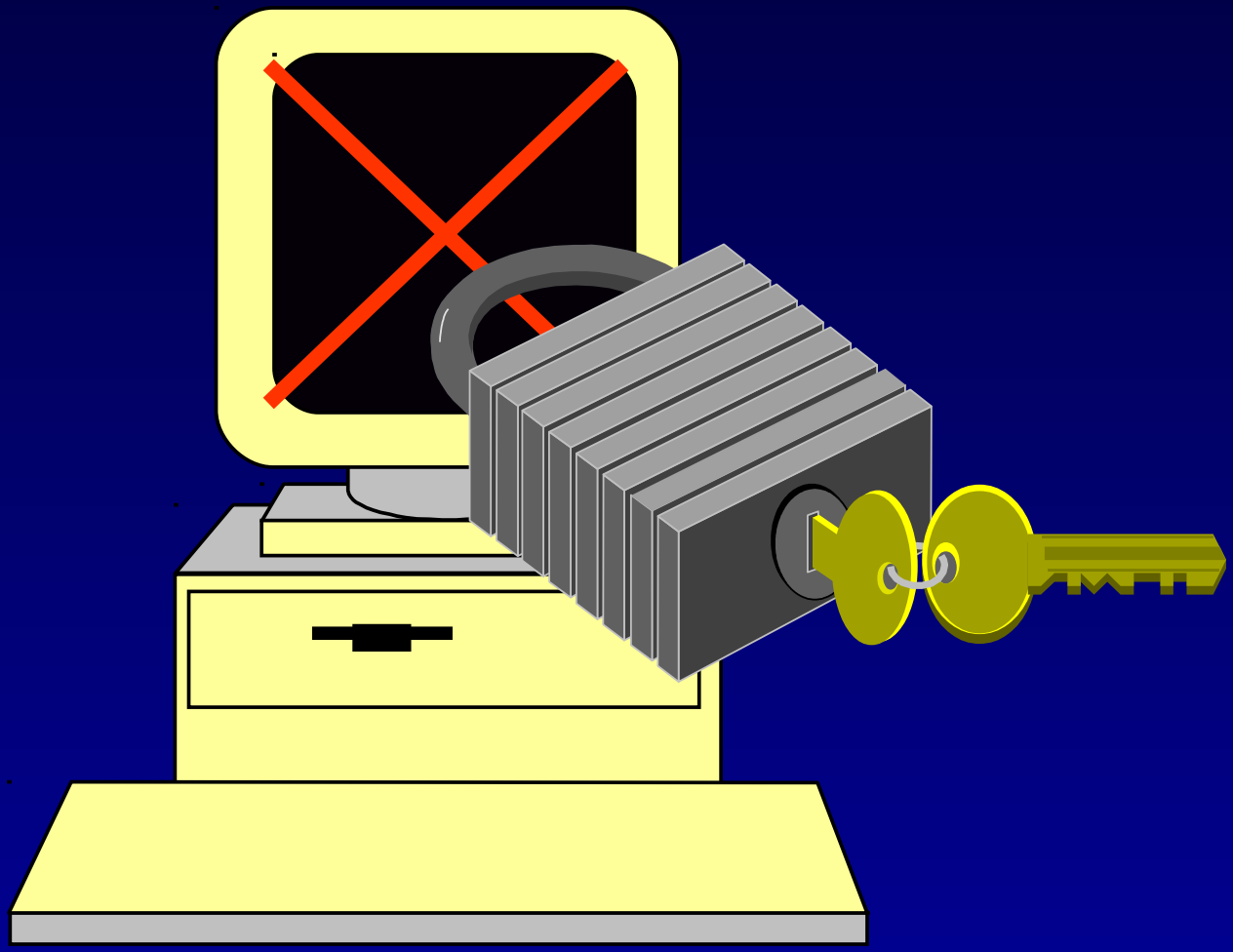
KC-135 Airborne Communications Relay



Warfighter Gateway



AOC Computer Access & Security



Hill ATO DeFragger

- Parses the ATO into Excell spread sheet
- Uses OPUS to “fly out” the mission packages

JFACC Phase III

KBI
SUBMITTED BY: MR. METZER DARPA/ROME LABS

Some Ideas in the Que

- Integrated C2 Environment
- Electronic Reflow Table
- Video Retrieval
- TBMCS Central Help Desk
- WX Radar Adjunct
- Have DAMA
- C2 Process Modeling

PROBLEM STATEMENT

- C2B currently does not possess model/models of current command and control processes from which to derive quantitative as well as qualitative measures of performance or effectiveness for pre-integration performance estimation

Model Requirements

- Describe/map the processes within each C2 node and between C2 nodes
- Assign performance values to processes, both inter-nodal and intra-nodal
- Allow processes to be reconstructed easily
- Allow nodes to be added and deleted easily
- Provide effect of network interruptions and failures
- Analyze effect of a node failure/destruction

Model Use

- Initial determination of utility of new concept or equipment without full scale test (quantitative and qualitative measures of performance or effectiveness)
  - Define optimal/most cost effective choice
  - Compare alternative approaches
- Presentation of the benefits of initiatives and potential testing strategies
- Validation of results of technical evaluations or operational assessments

Requesting Ideas

Web site URL:

HTTP://www.c2b.hurlburt.af.mil

or send email to:

ideas@c2b.hurlburt.af.mil

QUESTIONS